

**ABSTRACT**

5 A system and method for processing and generating control signals for the real-time controlling of signal processors, synthesizers, musical instruments, MIDI processors, lighting, video, and special effects in performance, recording, and composition environments. The invention provides for the use of incoming control signals to control events and parameters of low-frequency oscillators and transient generators. The invention also provides for the processing of control signal values such as addition, multiplication, mirroring, offset, etc., individually or in combination with one another. The invention further provides for the conversion of one type of control signal to another type of control signal, for example conversion of MIDI "note-on message" parameters such as note number and velocity into MIDI "continuous controller messages" etc. The invention is particularly directed towards, but not limited to, the processing and generation of control signals in the form of MIDI messages.